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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
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| 09/752,251      | 12/30/2000  | Wolfgang Roesner     | AUS920000226US1     | 7486             |

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| EXAMINER |
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HARTMAN JR, RONALD D

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| ART UNIT | PAPER NUMBER |
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2121

DATE MAILED: 01/06/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

**Application No.**

09/752,251

**Applicant(s)**

ROESNER ET AL.

**Examiner**

Ronald D Hartman Jr.

**Art Unit**

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 21 September 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-7 and 10-26 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-7 and 10-26 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 21 September 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- ☒ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date 9/21/2004.
- ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- ☐ Notice of Informal Patent Application (PTO-152)
- ☐ Other: \_\_\_\_\_.

### **DETAILED ACTION**

1. Claims 1-7 have been amended.
2. Claims 8-9 are canceled.
3. Claims 10-26 are newly added.

### ***Response to Arguments***

4. Applicant's arguments with respect to amended claims 1-7 and newly added claims 10-26 have been considered but are moot in view of the new ground(s) of rejection, as set forth below in this office action, and as the new grounds of rejection was necessitated by the amendment filed on 9/21/2004, this action is made FINAL.

### ***Claim Objections***

5. Claim 2, line 2, "said assignment statement *field*" does not have proper support.  
Claim 4, line 3 suffers from the same deficiency as claim 2 above.  
Claim 5, line 2 suffers from the same deficiency as claim 2 above.  
Claim 6, line 3 suffers from the same deficiency as claim 2 above.

### ***Claim Rejections - 35 USC § 102***

6. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

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7. Claims 1, 4-7, 10,12-15, 17-18, 20-26, are rejected under 35 U.S.C. 102(e) as being anticipated by Schubert et al., U.S. Patent No. 6,581,191.

As per claim 1, Schubert et al. teaches a data structure comprising:

- an assignment statement ("AS") containing data representing an instrumentation signal ("IS") and a logic or storage element value assigned to the "IS" (e.g. C9 L64-C10 L2), wherein the "AS" is incorporated in an HDL source code file using a specified syntax that is recognized by an HDL compiler such that the HDL compiler does not instantiate the "IS" into the digital circuit design (e.g. C15 L42-45), and wherein the specified syntax is subsequently processed by an instrumentation load tool to instantiate the "IS" within a design entity described by the HDL source code file (e.g. C22 L66- C23 L1; C23 L43-62; C23 L63-67 and C24 L5-15; "specially marked HDL comments", the use of "pragmas" within the comments and/or the use of conventional syntax notation for the beginning of the comments ("//")).

As per claims 4-5, 12-13, 17, 20, Schubert et al. further teaches that the instrumentation signal represents a simulation event and that the assignment statement contains data declaring the simulation event and that an event type field of the assignment statement contains data designating an event type for the simulation event, and an event name field containing data designating an event name for the simulation event (e.g. C23 L47-51 and C23 L63- C24 L15; "// B2SI" and the notations following the B2SI in lines 3-4 of the example represented by C24 L10-15).

As per claim 6, the use of an "intermediate signal", although not explicitly mentioned by Schubert et al., is a feature that the disclosed features and or capabilities of Schubert et al. possesses the ability to perform since the purpose of Schubert et al. is to provide an effective and reliable technique for analyzing, diagnosing and debugging fabricated hardware designs at a hardware description language level, and since these techniques occur over time using several compilation steps, while concurrently using

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data previously stored in a database, the use of intermediate signal's is inherent to performing compilations which utilize previously stored data vales or which perform separate compilation steps, both features being clearly taught by Schubert et al.

As per claims 7 and 14, Schubert et al further teaches the assigned logic value is a logical expression for combining a plurality of signals within the design entity described by the HDL source code file (e.g. See lines 3-4 of the "pragma comment").

As per claims 10, 15, 18, 21 and 24, claim 1's rejection is applied equally herein.

Furthermore, as per claim 15, a model build processing means and a compiler means are both taught by Schubert et al. (e.g. "other tools" or "front end module; element 706 and C23 L50-54 and "compiler"; C10 L14-16).

Furthermore, as per claims 22-23 and 25-26, Schubert et al. further teaches two compiling steps, since as previously mentioned, Schubert et al. teaches other tools, other than the compiling tool, performing actions based on information in the HDL comments; and therefore two compiling steps are inherent to the method and system disclosed by Schubert et al.

### ***Claim Rejections - 35 USC § 103***

8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

9. Claims 2-3, 11, 16 and 19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Schubert et al., U.S. Patent No. 6,581,191, as applied to claims 1, 10, 15 and 18 above, in view of Merryman et al., U.S. Patent No. 6,718,520.

As per claims 2-3, 11, 16 and 19, Schubert et al. does not specifically teach the comments being specified using a non-conventional HDL comment syntax.

Merryman et al. teaches the use of non-conventional comment syntax (e.g. "squiggly brackets"; C12 L11-25).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have incorporated syntax which specifically refers to comments so that comments can be effectively and reliably distinguished from other code, and this would have been obvious to one of ordinary skill in the art at the time the invention was made.

### ***Conclusion***

10. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ronald D Hartman Jr. whose telephone number is (571) 272-3684. The examiner can normally be reached on Mon. - Fri., 10:00 am - 7:30 pm EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Anthony Knight can be reached on (571) 272-3687. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Ronald D Hartman Jr.

Patent Examiner

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*RDH*

A handwritten signature in black ink, appearing to read 'Anthony Knight', with a stylized flourish at the end.

**Anthony Knight**  
**Supervisory Patent Examiner**  
**Group 3600**